

# PORT OF LIVERPOOL.



## ANNUAL REPORT

OF THE

## MEDICAL OFFICER OF HEALTH

TO THE

## PORT SANITARY AUTHORITY,

FOR THE YEAR

**1905.**

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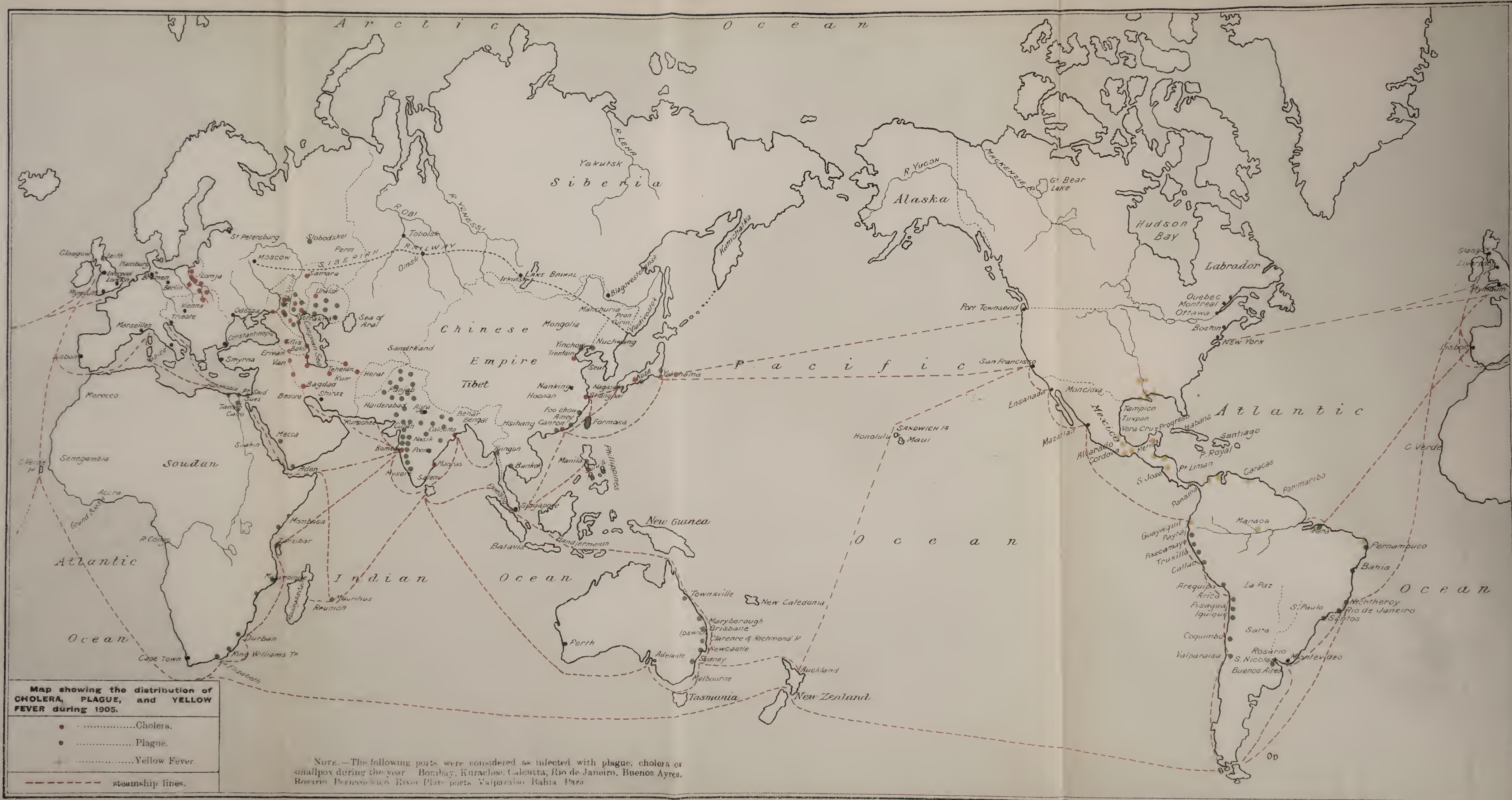


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# PORT SANITARY AUTHORITY

OF

## LIVERPOOL.

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**REPORT FOR THE YEAR 1905,**

BY THE  
MEDICAL OFFICER OF HEALTH.

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In accordance with the Regulations made by the Local Government Board, the following Report is made to the Port Sanitary Authority.

This Report comprises tabular statements, so far as the necessary information can be obtained, of the sickness and mortality of persons on ship-board within the District, classified according to diseases, vessels, &c.

According to these Regulations, this Report also gives a summary of the action taken during the year for the prevention of the spread of disease, it contains an account of inquiries made as to conditions dangerous or injurious to health, and of the proceedings taken under the Public Health Acts in connection therewith, and of the supervision exercised for sanitary purposes over places and vessels over which the Port Sanitary Authority has powers to regulate.

On the 31st October, 1893, the Local Government Board constituted the Mayor, Aldermen and Citizens of the City of Liverpool, acting by the Council, the Port Sanitary Authority for the whole of the said port (including the districts of the Riparian Authorities of Birkenhead, Bootle, Bromborough, Garston,\* Lower Bebington and Wallasey). It being more expedient that a proper Port Sanitary Authority should be permanently constituted for the Customs Port of Liverpool, and that the expenses incurred by such Port Sanitary Authority should be properly apportioned.

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\* Garston has since been incorporated with Liverpool.

The limits of jurisdiction have been referred to in detail in former Reports, and need not be further mentioned except to state that all waters, docks, quays, and the open sea for three miles from shore; all boats, vessels and landing places and for the purposes of the Public Health Acts, all persons therein, are included in this jurisdiction.

Regarding the assignment of powers, Section 4 of the Local Government Board Order states that for the purposes of this Order the following Sections (which are quoted) of the Public Health Act, 1875, Public Health (Officers Act, 1884, Public Health (Ships, &c.) Act, 1885, Public Health (Members and Officers) Act, 1885, and Public Health Acts (Amendment) Act, 1890, shall apply, and the Port Sanitary Authority “shall have, exercise, perform and be subject to all powers, rights, duties, &c., of an Urban Sanitary Authority under the same Sections, so far as these Sections are applicable to the waters within the jurisdiction of the said Port Sanitary Authority, or to ships coming or being within the said jurisdiction, or to persons on board any of such ships, or brought by any such ships within the said jurisdiction, or to goods or to things upon any such ship, or to goods or things landed from any such ship and being within the said jurisdiction, and which in the opinion of the said Authority or their Medical Officer of Health require to be disinfected or destroyed.”

The Riparian Authorities mentioned in the Order contribute towards any expenses incurred by the Port Sanitary Authority in the proportions following, namely:—

Urban Sanitary Authority for City of Liverpool	77·7	per centum.
Urban Sanitary Authority for Borough of Birkenhead	11·2	„
Urban Sanitary Authority for Borough of Bootle	6·3	„
Urban District Council of Bromborough	·2	„
Urban District Council of Lower Bebington	·5	„
Urban District Council of Wallasey	4·1	„

The following table gives the size of the Docks and Basins within the district :—

TOTAL WATER AREA AND QUAYAGE OF LIVERPOOL  
AND BIRKENHEAD DOCKS AND BASINS.

				Water Area.		Quayage.	
				Acres.	Yards.	Miles.	Yards.
Liverpool Docks and Basins	...	...	401	297	25	1,456	
Birkenhead Docks and Basins	...	...	164	4,190	9	925	
Total	...	...	565	4,487	35	621	

AREA OF THE DOCK ESTATE.

Liverpool	...	...	...	1,108 $\frac{3}{4}$ acres.
Birkenhead	...	...	...	506 „
Total...	...	...	1,614 $\frac{3}{4}$ acres.	

This area is exclusive of the land and foreshore belonging to the Dock Board situate south of the Dingle, Tranmere and Seaforth.

Besides the supervision of the Liverpool and Birkenhead Docks, the Authority has also control of the three Garston Docks, situated about five miles up the river. These docks are owned by the London and North-Western Railway Company.

Liverpool as a shipping centre has advanced steadily, the total number of vessels paying rates to the Harbour Board during the year ending 1st July, 1904, according to the Dock Board Returns, was 25,000, representing a total tonnage of 15,600,000. In the year ending 1st July, 1905, these had increased to 25,065 vessels, and almost 16,000,000 tons. This increase in trade and in the passenger service, as will be seen from the emigration figures at the end of the Report, has imposed greater responsibilities on the Port Sanitary Authority.



The Port of Liverpool is very conveniently situated for vessels requiring medical aid. If the captain of a vessel desires to report a case of sickness on board, or, having come from an infected port requires the medical inspection of his crew, he can signal the stations off Holyhead or Point Lynas, or speak the Formby Lightship 10 miles from the Liverpool Landing Stage.

Any communication thus received is telephoned to the Port Sanitary Office, and all arrangements can be made to deal with the vessel at once on arrival.

The work of the Port Sanitary Authority is carried out in conjunction with the staff of H.M. Customs, whose officers in their preventive duties are brought constantly in touch with all ships entering the port.

The Medical Officers visit ships on arrival, and, if necessary, remove patients in the Authority's tug or by ship's boat to the hospital jetty, where they are landed.

The hospital is situated on the Cheshire side of the river, close to the quarantine ground in the Sloyne; it is well isolated in 10 acres of ground, and surrounded by a high wall and iron railings. It is well equipped, and possesses isolation wards for doubtful cases, bathing accommodation, disinfecting apparatus, washhouses and a separate home for nurses.

The Port Sanitary Authority possesses powers under the Public Health Acts for dealing with infectious disease. In the case of ordinary forms of infectious sickness, the proceedings are conducted under the Regulations made pursuant to Section 125 of the Public Health Act, 1875. These Regulations for the removal to hospital of persons who are infected with a dangerous infectious disease, and brought within the Port by any ship or boat, were first made and approved of by the Local Government Board in August, 1894. These have recently (July, 1905) been amended.



The amended clause 4 reads as follows:—

“ The Master or other person in charge of the ship shall, for the  
 “ purpose of removing from the ship to hospital any person suffering  
 “ from a dangerous infectious disorder, on being required so to do  
 “ by the Medical Officer of Health, cause the ship to be brought to,  
 “ and (if necessary) moored or anchored either in some part of the  
 “ Customs Boarding Station, as defined, viz.:—Between the Prince’s  
 “ Landing Stage on the Lancashire side and Egremont Ferry on the  
 “ Cheshire side, or in the Quarantine Station in the Sloyne.”

The full text of the Regulations is as follows:—

REGULATIONS made by the Port Sanitary Authority for the Port of  
 Liverpool (pursuant to the Public Health Act, 1875, Section  
 125), for the removal to Hospital of persons brought within the  
 Port by any Ship or Boat who are infected with a Dangerous  
 Infectious Disorder.

1.—In these Regulations the expression “ The Port Sanitary  
 Authority ” means the Mayor, Aldermen and Citizens of the City  
 of Liverpool, acting by the Council as the Port Sanitary  
 Authority of the Port of Liverpool; the expression “ Dangerous  
 Infectious Disorder ” means any one of the following diseases:—

Smallpox,  
 Chickenpox,  
 Diphtheria,  
 Membranous Croup,  
 Erysipelas,  
 Scarlatina or Scarlet Fever,  
 Typhus Fever,  
 Typhoid or Enteric Fever,  
 Relapsing Fever,  
 Continued Fever.

In these Regulations the expression “ Ship ” includes a boat; and  
 the expression “ Medical Officer of Health ” includes any legally  
 qualified Medical Practitioner lawfully authorised to act on behalf  
 of such Officer.

2.—These Regulations shall remain in force until they are revoked by the Port Sanitary Authority, or until fresh Regulations, under Section 125 of the Public Health Act, 1875, are made by the Port Sanitary Authority and approved of by the Local Government Board.

3.—Every master or other person having charge of a ship arriving in the Port of Liverpool, with any person on board, whether a passenger or belonging to the ship's crew, suffering from a dangerous infectious disorder, shall forthwith send notice to the Medical Officer of Health of the Port Sanitary Authority at his office at the Municipal Offices, Dale Street, Liverpool, that there is a person on board suffering from such a disorder.

4.—The master or other person in charge of the ship shall, for the purpose of removing from the ship to hospital any person suffering from a dangerous infectious disorder, on being required so to do by the Medical Officer of Health, cause the ship to be brought to, and (if necessary) moored or anchored either in some part of the Customs Boarding Station, as defined, viz.:—Between the Prince's Landing Stage on the Lancashire side and the Alfred Dock on the Cheshire side, and between Salisbury Dock on the Lancashire side and Egremont Ferry on the Cheshire side, or in the Quarantine Station in the Sloyne.

5.—The Medical Officer of Health, to whom notice is given, as aforesaid, shall, as soon as practicable, visit the ship and ascertain whether the person referred to in the notice is suffering from a dangerous infectious disorder, and if, in the opinion of the Medical Officer of Health, he is, and can properly be removed, and proper accommodation can be provided for him in the hospital of the Port Sanitary Authority or in some other hospital to which the Port Sanitary Authority are entitled to remove patients, the master or other person having charge of the ship shall give every facility to the Officers of the Port Sanitary Authority to remove the patient to such hospital, according to the directions of the Medical Officer of Health.

6.—If any dangerous infectious disorder shall break out on board of any ship after arrival in the Port, the master or other person having charge of such ship shall give notice to the Medical Officer of Health of the Port Sanitary Authority, at his Office at the Municipal Offices, Dale Street, Liverpool, that there is on board a person suffering from such disorder, and if, upon examination, the Medical Officer of Health shall find that he is so suffering, the master or other person having charge of such ship shall give every facility to the Officers of the Port Sanitary Authority to remove the patient to a hospital to which the Port Sanitary Authority are entitled to remove patients, as directed by the Medical Officer of Health.

7.—Every person who shall offend against any of the foregoing Regulations shall be liable for every such offence to a penalty of Forty Shillings.

Passed under the Common Seal of the said  
Mayor, Aldermen and Citizens, this  
Twelfth day of July, 1905 in the  
presence of

LS

JOHN LEA,  
LORD MAYOR,

The foregoing regulations under Section 125 of the Public Health Act, 1875, are hereby approved of by the Local Government Board this Twenty-fifth day of July, 1905.

LS

S. B. PROVIS,  
SECRETARY.

As will be seen, the Medical Officer has now power to deal with an infected vessel, so as to prevent the spread in port of such diseases as Smallpox, and he is now in a position to deal with the patient, contacts, bedding, &c., before she enters dock. As a rule, however, Liverpool ship-masters and owners are perfectly willing to assist the Port Sanitary Authority in doing all that is necessary to stop infection, and it has never been necessary to enforce the above powers.



By a special arrangement with Manchester Port Sanitary Authority, vessels bound for Manchester, and having Smallpox on board, are dealt with at Liverpool, the patients being removed and the ship disinfected before proceeding.

It may be mentioned that Customs Officers, on boarding vessels in the river, are usually the first to notify the Port Sanitary Authority of sickness on shipboard, and all doubtful cases are visited by the Medical Officer.

As a routine practice in Liverpool, it is found most convenient to remove cases of scarlet fever, measles, and enteric when the ship has entered dock, in this way much valuable time is saved; vessels can only enter dock when the gates open, which is about two hours before high water.

This method of dealing with the above diseases, which are more or less always to be found in this country, differs somewhat from the powers and methods of combating such diseases as plague, cholera and yellow fever. These diseases are dealt with under the Local Government Board's Order of 9th November, 1896. In that year the responsibility which had formerly under the old Quarantine Acts rested with the Customs Officers was transferred to Port Sanitary Authorities, and the Quarantine Acts were repealed by the Public Health Act, 1896, and the penalty of £50 was altered to one of £100.

If the Customs Officer on visiting a ship from foreign parts finds or suspects from the verbal statements of the master that the ship is infected with any of the above-mentioned diseases, he requests him or the surgeon to give a true answer in writing on a special form. He also detains the ship, and causes her to moor or anchor until he can communicate with the Medical Officer of Health. No person can leave a ship so detained until the Medical Officer has examined the ship, and the Medical Officer visits and examines the ship as soon as possible and carries out the provisions of the Order.

Apart from this visit of the Customs Officer, the Medical Officer has power to board and examine any ship which he may have reason to suspect is infected or has come from an infected place, and the master shall permit his ship to be visited and examined.

If the ship be declared infected by the Medical Officer, every person on board is examined and those suffering from cholera, plague or yellow fever are removed to hospital.

No person on such a ship can land unless he satisfy the Medical Officer as to his name, intended place of destination and address at such place. These particulars are forthwith transmitted to the Local Authority of the district. The Medical Officer also gives directions and takes such steps as may be necessary for preventing the spread of infection, and the master must carry into execution such directions as shall be given to him.

These directions, as regards disinfection and other requirements of the Order, are carried out at the Quarantine Station in the Sloyne.

If the Medical Officer of the Manchester Port Sanitary Authority visits and examines any ship within the Manchester District, and if he find that the ship is infected, and if the ship be not moored in or at any of the basins, docks, quays or wharves within the jurisdiction of the Manchester Port Sanitary Authority, the Medical Officer shall give a certificate of infection and remain on board the ship until she has been moored or anchored at the Liverpool Mooring Station, or until the arrival of the Medical Officer of Health of the Liverpool Port Sanitary Authority. On arrival at the Liverpool mooring station the vessel is dealt with as are infected Liverpool ships.

By the International Sanitary Convention of Paris, 1893, the signatory powers have agreed to carry out various measures for the suppression of these diseases, and particularly in the methods of dealing with plague rats on shipboard.

To enable Regulations to be made for carrying into effect conventions or arrangements with foreign countries, such as that signed at Paris, 1903, with respect to the prevention of danger arising to the public health from vessels and the prevention of the conveyance of infection by means of vessels, a special Act was passed, called the Public Health Act, 1904, but the Regulations shall not be made except after consultation with the Board of Trade.

As heretofore, vessels having had sickness on board, or having come from infected ports, can only enter the Liverpool Docks after examination, and after the master has received a certificate from the Medical Officer stating that she may enter.

The Mersey Docks and Harbour Board, recognising the necessity of preventing the entrance of infected vessels into the docks before they have been properly disinfected, have continued to assist the Port Sanitary Authority in requiring the above-mentioned docking certificate which is handed to the Dockmaster as the vessel passes through the gates.

Amended instructions have been issued during the year to masters of ships and pilots of the Port regarding the boarding arrangements in connection with vessels entering the Port. These have been issued to prevent delay to vessels through any misunderstanding or carelessness on the part of those in charge, and are as follows:—

#### CHOLERA, YELLOW FEVER AND PLAGUE.

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##### Special Instructions to Masters of Vessels coming from Infected Ports.

1.—The Liverpool Port Sanitary Authority from time to time declare certain Ports to be infected, according to the prevalence of the above-mentioned diseases.

The names of these Ports can be obtained on application at the Offices, and are given from time to time to Customs Officers and Pilots.



2.—Any vessel coming from an infected Port wishing to enter any dock in the Port of Liverpool, which embraces Birkenhead, Bootle, Garston and Widnes, or wishing to enter the Manchester Ship Canal, must produce a certificate from the Medical Officer of the Port of Liverpool stating she may so enter.

3.—To obtain this Docking Certificate, vessels coming into the Port of Liverpool must come to off the Liverpool Landing Stage, and, if necessary, anchor there until dealt with. One of the Medical Staff of the Sanitary Authority of the Port will visit and inspect the vessel, and, if satisfied, will issue the certificate referred to above. The Medical Officer is on duty at every tide.

4.—The granting of a “Pratique” Certificate by the Customs Officers does not exempt the vessel from this examination or give the captain liberty to proceed to dock.

5.—Whilst a ship shall be waiting for the examination of the Medical Officer no person (other than an Officer of Customs or a person acting on behalf of this Authority) shall leave the same.

6.—All vessels from infected Ports entering the Mersey will show the quarantine flag by day and the light at night.

7.—The master will be required to give in writing to the Examining Officer the name and destination of all persons on board his vessel, and will be expected to facilitate in every way the inspection of crew and passengers, and to follow the instructions of the Medical Officer.

8.—Special care is to be taken that rats do not enter the vessel while lying in infected Ports, nor leave the vessel while she is at Liverpool. For this latter purpose special instructions will be given during inspection.

9.—Arrangements have been made with the Mersey Docks and Harbour Board for their officers to communicate from Formby Lightship the arrival of vessels from infected Ports. Masters should signal the lightship.

By Order,

PORT SANITARY AUTHORITY,  
LIVERPOOL.

Port Sanitary Offices,

Prince's Pier Head,

Liverpool, *February*, 1905.

## INFECTIOUS DISEASE.

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The routine inspection of shipping from infected ports for the presence on board of plague, cholera and smallpox has been carried out during the year with the usual care and thoroughness by Dr. Hanna and Dr. Roberts.

Plague during the year was practically pandemic, with the exception of Europe. The usual precautions were taken and enquiries made as regards rats. Five cases of sickness with fever or buboes were removed to hospital for further examination, but in no case was the suspicion of plague confirmed.

Several steamers arrived at Continental ports with suspected plague rats on board, viz., s.s. Undini from Chili and s.s. Ashmore from La Plata, these vessels arrived at Antwerp—no human beings, however, showed signs of infection.

The s.s. Hylas arrived at Hamburg from the River Plate, and had undoubted plague rats on board. One of the crew of this vessel on his return home developed plague in Manchester and died, several suspects were kept under observation in Liverpool for some days, but no signs of the disease appeared amongst them.

During the autumn, cholera threatened the Baltic Ports and Hamburg. Enquiries were made on all vessels arriving from these ports as to sickness on the voyage and the character of the drinking water.

Smallpox continues to be extremely prevalent in South America—Rio de Janeiro, Pernambuco and Valparaiso suffering most.

During the year five ships brought genuine smallpox into the Port.

### Local Importations of Plague.

s.s. **Crewe Hall**, from Rangoon, arrived in the Mersey on January 30th, 1905. She was cleared by Customs Officers at 6-15 p.m. on that date, the captain answering the usual questions, and stating that they were "all well" on board.

The ship was rummaged in the river on the 31st January, the water being too low (14 feet) for the ship to dock.

On the morning of the 1st February, the ship entered the Toxteth Dock, and during the morning one of the Customs Officers noticed a Lascar (Esmail Mahomedjee) sick in his bunk, and apparently dying. On enquiry the officer was informed that he had a severe cold. The officer at once notified the Port Sanitary Authority by special messenger and by telephone. This was the first notification the Port Sanitary Authority received.

The Assistant Medical Officer visited the ship at once. He interviewed the captain and chief steward, the latter having attended and treated the Lascar for the previous seven days. They stated that the man had had high fever, and thought it was malaria; they also mentioned that the man had a painful swelling in the femoral region. The native serang also stated that the man complained of fever and painful lump in the groin.

The Assistant Medical Officer found the man laid out, and examined the body in the native sailors' fore-castle, and all that could be found on examination at the time was a large bubo in the left femoral region.

Plague being suspected, the native crew were cleared out of the fore-castle, the body removed to a mortuary, and the places and all the effects of the native crew disinfected. The contacts, 15 in number, after bathing and putting on disinfected clothing, were removed to the Port Sanitary Hospital for observation. The ratcatcher for the Authority was at once notified and visited the vessel, but found no dead or sick rats.



He set his traps at once, and as a result only 11 rats were caught; these were forwarded to the Corporation Bacteriologist. A further disinfection of all suspected quarters of the ship was undertaken on the 2nd February, and these were re-painted. The cargo was discharged under strict supervision, and a careful watch kept for dead rats. Fumigation of the holds with sulphurous acid gas to destroy rats was carried out before the vessel sailed.

The results of the post-mortem examination, as also of the microscopical and bacteriological examinations made by Dr. Hanna, confirmed the diagnosis of plague, which was subsequently verified by Professor Boyce, and Dr. Klein of the Local Government Board.

The "Crewe Hall," after leaving Liverpool on the previous voyage, called at Lisbon, and then proceeded to Natal.

Arrived at Natal ...	...	1st November, 1904.
Delagoa Bay ...	11th	„ „
Beira ...	18th	„ „
Rangoon ...	23rd	December, 1904.
Colombo ...	28th	„ „
Suez ...	13th	January, 1905.
Port Said ...	13th	„ „
Algiers ...	22nd	„ „
Liverpool ...	30th	„ „

The cargo on arrival here consisted of the following:—

839 bales cotton.  
81,701 bags of rice meal.  
36,066 bags rice.  
441 ventilators.

It is of interest to note that no reports from any sources (official or press) gave any suspicion of the extensive prevalence of plague at Rangoon until some time after the arrival of the above vessel in Liverpool.

The Port Medical Officer, in conformity with the Articles of the International Convention, informed the Consular Representatives in the City of the occurrence of this case, and of the measures adopted to check the spread of the disease.

An information was laid against the captain of this vessel for a breach of Article 23 of the Regulations of the Local Government Board under the Public Health Act, 1896, by "neglecting to answer truthfully questions put to him regarding the health of those on board his vessel." He was fined £10 and costs.

This case aroused a good deal of local interest amongst ship-masters and others. The gravity of the case is much increased when it is realised what enormous losses to trade and shipping would arise if this dreaded disease was allowed to establish itself in a Port like Liverpool; it then becomes an international question.

The gravity of a breach of the regulations drawn up for the protection of the Port can be measured by the heavy fine (£100) which can be imposed under the Act.

**s.s. Oropesa**, from Valparaiso and South American Ports.

The above ship arrived on December 19th from Valparaiso, having touched at various South American Ports. On arrival off the Landing Stage she was boarded by the Port Medical Officer.

Plague was known to exist at several South American Ports, and the symptoms of illness in the case of three men, although mild throughout, pointed to plague. Specimens were examined on arrival at Lisbon, and, although plague was suspected, the patients were not removed from the ship at that Port according to the Articles of the Paris Convention, 1903. The bacteriological examination, according to telegram received by the ship at La Pallice, confirmed the disease as plague.

The men were isolated on board, and on arrival they were found to be convalescent but each one of them showed at least one well-developed symptom of plague.

The vessel was dealt with under the Local Government Board Order of 9th November, 1896. She was ordered to the quarantine ground in the Sloyne, and a certificate of infection was handed to the master. The three sick men were removed to the Port Hospital, together with two other men who had been attending them. No passengers had been in contact with the sick men or with the part of the ship in which the sick men were.

The usual proceedings were taken, and the ship was disinfected

Twenty-one rats were caught, and at once submitted to bacteriological examination; these were declared not to be plague infected.

The vessel was allowed to dock on December 21st, the disinfection having been completed.

On removal to hospital, examination of the contents of the buboes was made by Professor Boyce, but no bacilli were found, the buboes being in a suppurating state. On further communication with the Lisbon Health Authority, the following letter was received from His Excellency the Inspector-General of the Sanitary Service:—"The three patients on the s.s. "Oropesa" were clinically, and particularly epidemiologically, suspected for this reason—a bacteriological analysis was made from pus taken from one of them. The immediate microscopic examination shewed the absence of pyogenic cocci and the presence of bacilli, few and poorly defined, which had the appearance of degenerated plague bacilli. The cultures having been made, colonies of Kitasato-Yersin bacilli were obtained; the aspect of these colonies, the colouring reaction and the morphology were absolutely characteristic. With the isolated cultures, a rat succumbed from subcutaneous inoculation at the end of four days. Thus it became proved that it was plague bacillus, but of slight virulence."

**Rats.**—Experienced and reliable ratcatchers are employed at this Port for the purpose of supervising the rat population on board ships from infected ports, noting any sickness or mortality amongst them. These men also trap rats on board such vessels, and these are submitted to bacteriological examination for plague.

We have already in previous Reports drawn attention to the special regulations drawn up by the Paris Sanitary Convention of 1893; these deal with the fumigation of vessels on which plague-suspected or infected rats are found. It is now generally admitted that plague in European ports will not spread to any marked extent if proper precautions be taken; should, however, plague find its way amongst the rat population of a seaport, the danger of spread is very great and its eradication much prolonged. During the year, 6,651 rats have been caught and examined. None were found to be infected with plague.



### Consular Health Certificates.

During the last year the demand for certificates indicating the freedom of the City from quarantinable infectious sickness showed a slight decrease, the number of certificates of this character issued to merchants and shipowners for various Consular purposes during 1905 being 304.

In this connection it may be well to again lay stress on certain Articles of the International Sanitary Convention of Paris, 1903, which are now in force.

When the case of plague occurred on the s.s. "Crewe Hall" in February, the attention of Consuls was particularly drawn by the Port Medical Officer to Articles 7 and 9. These articles deal with the conditions which permit a district to be considered infected or to be declared free.

The importation of cases of plague or cholera by sea or the occurrence of a first case in a port does not lead to the adoption of quarantine measures by other countries against the local area where the case has occurred. It is only when several *non-imported* cases of plague have occurred, or when cases of cholera constitute a centre of dissemination, that the local area is declared infected. The Articles 7 and 9 are very important, and it would be a breach of the terms of the Convention for an imported case of cholera or plague to give rise to quarantine measures on the part of foreign countries, and would cause much serious loss to trade.

### Distribution of Plague, Cholera and Yellow Fever during the year.

**Plague.**—In India this disease still continues to be practically pandemic. Bengal, Bombay Presidency and United Provinces record a heavy death roll. In Burma, Rangoon became infected in the beginning of the year.

In the Far East plague is prevalent, and continued its ravages in Formosa—from January till October no fewer than 2,793 cases and 2,424 deaths were reported. The disease is also present in the Phillipine Islands and Japan.

South American Ports harbour the disease, especially along the West Coast; many seaports on the East Coast also record cases.

The chief interest of plague during the year 1905 was the importation of the disease to European seaports. The s.s. "Ashmore" from La Plata, and the "Undini" from Pisagua arrived with suspected sickness at Antwerp. On board the s.s. "Hylas" from South Africa and River Plate plague rats were found, at Hamburg. After fumigation, this vessel left Hamburg on June 8th for Middlesborough. From this port the crew dispersed, and the names and addresses of destination were forwarded to the clerks of the various districts.

Several of the crew arrived in Liverpool, and at Manchester one who resided there was found to be suffering from plague, and subsequently died.

The s.s. "Weybridge" from River Plate landed a case at London; at Liverpool the s.s. "Crewe Hall" and s.s. "Oropesa" landed cases, one of which died.

Of more interest still was the establishment of plague at the Port of Leith, where four cases and one death occurred. The man who died worked in a rag store. A considerable number of contacts were isolated, but no further cases occurred.

In Australia plague continues in New South Wales and Queensland.

**Cholera.**—In Japan and China cholera was prevalent at Kobe, Yokohama, Tientsin, Hong Kong and Shanghai.

In India, Calcutta and Madras showed a very high mortality, thousands of deaths occurring in each of these cities.

The disease is gradually diminishing in Persia and Turkey, but at Ravandouz and Van in the latter country it is still epidemic.

Cholera during the year has shown a steady inclination to settle in Russia, especially in the regions bordering on the Caspian Sea, in the Astrakan, Samara and Saratov provinces and in Uralsk, also in the

trans-Caspian regions and trans-Caucasia. The disease spread during the year to Poland and Western Russia, but from the unsettled state of the country no reports of its presence were obtainable. The disease found its way into West Prussia by Russian raftsmen on the River Vistula. The first case occurred on August 15th near Culm on a Russian raft, and further cases were subsequently found. In Hamburg (August 27th) a Russian emigrant, en route for America, died from cholera. Comprehensive instructions were issued by the Authorities as regards notification of cases or suspected cases of cholera, and the Government introduced a system of inspection of dead bodies in the districts of the Rivers Vistula, Brahe, and the canals in the neighbourhood; warnings were issued as to drinking the waters of the streams and bathing in the same.

The authorities soon succeeded in suppressing the disease, but not until about 287 cases and 93 deaths had occurred throughout Germany.

The districts chiefly affected were Bromberg, Dantzig and Marienwerder; cases also occurred in the districts of Breslau, Frankfort, Hamburg, Königsberg, Posen and Potsdam.

In Western Russia, from the information available, cases occurred in the provinces of Lomja, Ostrolenka, Petrokov, Warsaw and Vistula territory.

**Yellow Fever.**—This disease is still confined to its old haunts in tropical and sub-tropical portions of North and South America. During the year it made considerable progress in the southern towns of United States, chiefly in those along the River Mississippi.

### Smallpox.

The following vessels brought cases of smallpox to this port during the year:—s.s. "Heathfield" from Eupatoria, s.s. "Orissa" from Valparaiso, s.s. "Bonny" from Axim, s.s. "Flaminian" from Patras, and s.s. "Minerva" from Malaga.

No extension from these imported cases occurred, and all precautions regarding disinfection and vaccination were thoroughly carried out.

**Vaccination.**—Two hundred and seven persons (contacts and others) were vaccinated in connection with the above ships and other ships which brought cases of a doubtful nature into the Port during the year.



### **Enteric Fever.**

Twenty-six cases of enteric fever were landed at this Port. This number is much less than during 1904, when it was 38, and is much less than the average for the preceding 10 years.

As in former years, the majority occurred on vessels from North and South America, or from the Eastern Mediterranean.

Careful attention were given on arrival to the disinfection of the quarters, disinfection and cleansing of the lavatories and drinking-water tanks. Enquiries were also made as to the source of the water supply.

### **Scarlet Fever, Measles, etc.**

The following cases of infectious disease occurred amongst passengers, immigrants or amongst those attending on them:—Scarlet Fever, 4; Measles, 10; Typhus, 1; Chickenpox, 3; Diphtheria, 2; Erysipelas, 5; Parotitis, 6.

### **Phthisis.**

The infectiousness of this disease has now been recognised by the majority of ship captains, and where deaths have occurred at sea disinfection has been already done, also beds and bedding thrown overboard before arrival in Port. During the year 33 cases of phthisis occurred on board Liverpool-bound ships, and the usual disinfection of quarters and everything likely to retain infection was carried out where it had not already been done.

### **Beri-Beri.**

Thirty-one cases of this disease occurred, and were reported to the Authority.

Thirteen of these arrived in the Port, and those not convalescent were removed to hospital, where they all recovered.

The vessels reporting cases were:—s.s. “Ivernia,” “Obidense,” “Hector,” “Hildebrand,” “Augustine” and “Ida,” also the s.s. “Polynesia” from Gilbert Islands landed seven cases abroad, and enquiries were made as to the character of the food supply; the s.s. “Forsteck” from Karachi had five convalescent cases (Chinamen), who were removed to the Royal Southern Hospital on arrival—one case had been landed at Colombo. The usual food, including rice, dried fish, &c., was partaken of by these men. The s.s. “Yangtze” from China had four convalescent cases (Chinamen) on arrival; one case had been landed at Amsterdam and died.

This disease is still of uncertain origin, but progress is being made with investigations in various parts of the world.

TABLE 1.

## ENTERIC FEVER IMPORTATIONS DURING 1905.

Date.	Ship.	From	Number of Patients.	Remarks.
Jan. 4	Merion ...	Philadelphia ...	Steward	Three of the crew were landed at Gibraltar.
„ 17	Panama ...	Valparaiso ...	Steward	
„ 27	Brittany ...	Rosario ...	Seaman	
„ 28	Haverford ...	Philadelphia ...	Steerage Passenger	
Feb. 9	Friesland ...	Philadelphia ...	Steerage Passenger	
March 22	Pegu ...	Glasgow ...	Native Fireman	
„ 27	Winifredian...	Boston ...	Cattleman	
„ 30	Porpoise ...	Rosario ...	Stewards (2)	
April 14	Campania ...	New York ...	Seaman	
May 8	Orissa ...	Valparaiso ...	Engineer	
„ 8	Patroclus ...	Singapore ...	Passenger	
„ 22	Oruba ...	Valparaiso ...	Steward	
June 1	Baltic ...	New York ...	Butcher	
„ 24	Degama ...	Mobile ...	Apprentice	
July 10	Avon ...	Alexandria ...	Fireman	
„ 27	Amarapoor...	Glasgow ...	Carpenter	
Sept. 4	Olympia ...	Bombay ...	Chief Officer	
„ 16	Kensington ...	Montreal ...	Steward	
„ 22	Ivy ...	Pentewan ...	Seaman	
„ 22	Bohemian ...	Boston ...	Seaman	
„ 28	Tyria ...	Patras ...	Second Officer	
Oct. 23	Lake Erie ...	Montreal ...	Cattleman	
„ 25	Jerome ...	Manaos ...	Steward	
Nov. 6	Celtic ...	New York ...	Steward	
Dec. 14	Cedrie ...	New York ...	Passenger	

TABLE 2.

## INFECTIOUS DISEASE.

The actual number of cases of infectious sickness landed from vessels arriving in the Port of Liverpool during the years 1904 and 1905, and the comparison with the average of the preceding 10 years, is shown in the following Table:—

Diseases.	Number of Cases.		Average for the 10 years preceding 1905.
	1904.	1905.	
Smallpox .....	6	5	13·4
Scarlatina .....	5	4	8·2
Typhus Fever .....	1	1	0·5
Enteric Fever .....	38	26	31·7
Diphtheria.....	4	2	3·8
Measles .....	30	10	14·9
Whooping Cough .....	0	0	0·4
Erysipelas .....	1	5	3·8
Chicken Pox .....	4	3	4·6
Cholera and Choleraic Diarrhœa .	0	0	0·0
Yellow Fever.....	0	0	0·3
Plague .....	0	4	0·4
Suspected Plague .....	5	5	2·3
German Measles .....	2	2	0·7
Puerperal Fever .....	0	0	0·2
Parotitis .....	3	6	1·2
Totals .....	99	73	86·4



TABLE 3.

## INFECTIOUS DISEASE.

The number of cases of infectious sickness reported to have occurred on Liverpool-bound ships during the years 1904 and 1905, and which were disposed of prior to the arrival of the vessel at this port, and the average of such cases for the preceding 10 years, are as follows:—

Diseases.	Number of Cases.		Average for the 10 years preceding 1905.
	1904.	1905.	
Smallpox .....	4	27	6·2
Scarlatina ... ..	3	0	0·8
Typhus Fever ... ..	0	0	0·1
Enteric Fever .....	19	6	5·8
Diphtheria.....	1	1	0·6
Measles .. .....	12	23	2·9
German Measles .....	1	0	0·1
Erysipelas .....	1	0	0·3
Chicken Pox .....	1	0	0·6
Cholera and Choleraic Diarrhœa	0	0	2·2
Yellow Fever... ..	0	0	4·4
Plague .....	2	2	0·7
Suspected Plague .....	2	2	0·3
Totals.....	46	61	25·0

The following Table gives the particulars of the 90 vessels reported the measures adopted in each case :—

TABLE 4.

Date 1905.	Name of Vessel.	Where from.	Nature of Sickness.	Hospital to which Patient was removed.
Jan. 11	<b>Auldgirth</b> ...	San Francisco	Erysipelas ...	... ..
Jan. 14	<b>Merion</b> ...	Philadelphia	Enteric Fever	Grafton Street
Jan. 14	<b>Devonian</b> ...	Boston ...	Enteric Fever	... ..
Jan. 17	<b>Panama</b> ...	West Coast, S. America	Enteric Fever	Netherfield Road
Jan. 19	<b>Teutonic</b> ...	New York ...	Erysipelas ...	Brownlow Hill..
Jan. 26	<b>Majestic</b> ...	New York ...	Measles ...	Grafton Street ..
Jan. 27	<b>Brittany</b> ...	Rosario ...	Enteric Fever	Grafton Street ..
Jan. 28	<b>Haverford</b> ...	Philadelphia	Enteric Fever	Netherfield Road
Feb. 1	<b>Sirius</b> ...	Hayle ...	Erysipelas ...	... ..
Feb. 1	<b>Crewe Hall</b> ...	Rangoon ...	Plague ...	... ..

on arrival as having, or having had, Zymotic Disease on board, with

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REMARKS.

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The Second Officer of this vessel, who was suffering from Erysipelas, was isolated, and remained on board. On his recovery disinfection was carried out by the Port Sanitary Officers and the City Staff.

The patient, one of the crew, was removed to Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

The patient died, and was buried at sea on the homeward passage. Disinfection carried out by the Ship's Officers.

The patient, one of the crew, was removed to Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

The patient, a passenger, was removed to Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

A third-class passenger, who was suffering from Measles, was removed to the City Hospital, Grafton Street, and the vessel disinfected.

One of the crew, who was suffering from Enteric Fever, was removed to Hospital from his home in the City. The vessel and bedding were disinfected by the Port Sanitary Officers and City Staff.

The patient, one of the crew, was removed to Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

The patient, one of the crew, remained on board, and on his recovery disinfection was carried out.

This vessel arrived in the Port on the 30th January, having on board a Lascar suffering from Plague. (See page 15.)



Date 1905.	Name of Vessel.	Where from.	Nature of Sickness.	Hospital to which Patient was removed.
Feb. 8	<b>Seti</b> ... (for Manchester)	Alexandria ...	Small-pox ...	... ..
Feb. 9	<b>Friesland</b> ...	Philadelphia	Enteric Fever	Netherfield Road
Feb. 10	<b>Olympia</b> ...	Bombay ...	Small-pox ... (2 cases)	... ..
Feb. 14	<b>Madeirense</b> ...	Para... ..	Measles ...	... ..
Feb. 15	<b>Walter Bibby</b> Steam Dredger	Preston ...	Small-pox ...	... ..
Feb. 18	<b>Lucania</b> ...	New York ...	Scarlatina ... (3 cases)	Grafton Street...
Mar. 8	<b>Marie</b> ...	Stettin ...	Erysipelas ...	Brownlow Hill..
Mar. 12	<b>Pindari</b> ...	Calcutta ...	Suspected Small-pox	New Ferry ...
Mar. 22	<b>Pegu</b> ...	Glasgow ...	Enteric Fever	Grafton Street..
Mar. 22	<b>Ararat</b> ...	Alexandria ..	Small-pox ...	... ..

## REMARKS.

The patient, one of the passengers, proceeded with the vessel to Manchester. On arrival at Liverpool the sickness had not developed sufficiently for the Surgeon on board to diagnose it. Manchester Port Medical Officer notified.

The patient, a steerage passenger, was removed to Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

Two of the native crew of this vessel were landed at Suez on the homeward passage, suffering from Smallpox. Disinfection of the vessel was carried out at Suez.

The patient, a child passenger, being convalescent and free from infection, was allowed to proceed. Disinfection of the vessel was carried out.

Information was received from Preston that a member of the crew of this dredger, working in the Queen's Dock, had been removed to Hospital at Preston suffering from Smallpox. All the quarters were disinfected, and the crew (16 in number) were re-vaccinated.

The patients, three stewards, were removed to Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

The patient, the Chief Officer, was removed to Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

One of the native crew (a fireman) was taken by boat to the Port Hospital for observation, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff. The sickness proved to be non-infectious.

The patient, a Lascar fireman, was removed to Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

A pilgrim was found dead on board on the outward passage to Alexandria, and the death was certified by the Medical Officer of that Port to be due to Smallpox. Disinfection carried out at Alexandria.

Date 1905.	Name of Vessel.	Where from	Nature of Sickness.	Hospital to which Patient was removed.
Mar. 16	<b>Britannia</b> ...	Bombay ...	Small-pox ...	... ..
Mar. 16	<b>Den of Airlie</b>	Bombay ...	Small-pox ...	... ..
Mar. 27	<b>Winifredian</b>	Boston ...	Enteric Fever	Netherfield Road
Mar. 27	<b>City of Oxford</b>	Karachi ...	Small-pox ...	... ..
Mar. 28	<b>Senator</b> ...	Galveston ...	Enteric Fever	.. ...
Mar. 30	<b>Porpoise</b> ...	Rosario ...	Enteric Fever (2 cases)	Grafton Street...
April 1	<b>Heathfield</b> ...	Eupatoria ...	Small-pox ...	New Ferry ...
April 3	<b>Massilia</b> ...	Bombay ...	Small-pox ...	... ..
April 3	<b>Clan Macdonald</b> ...	Bombay ...	Small-pox .. (5 cases)	... ..



## REMARKS.

One of the crew (a native) was landed at Suez on the homeward passage suffering from Smallpox. Disinfection was carried out by the Port Authorities at Suez.

The Chief Officer of this vessel was left in Hospital at Bombay. The bedding was destroyed, and the vessel disinfected by the ship's officers.

The patient, a cattleman, was removed to Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

The Third Engineer of this vessel was left in Hospital at Karachi, suffering from Smallpox. Disinfection carried out at Karachi.

The Second Officer, who was suffering from Enteric Fever, was landed at Galveston on the homeward passage. Disinfection carried out at Galveston.

The patients, a steward and the messroom boy, were removed to Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

The patient (one of the firemen) and four contacts were removed by tug-boat to the Port Hospital. The crew were re-vaccinated, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

The native cook, who was suffering from Smallpox, and one contact, were left in Hospital at Suez on the homeward passage. Disinfection carried out by the Authorities at Suez.

Five cases occurred during the voyage. Three recovered, one was landed at Antwerp, and one proved fatal. At Antwerp the vessel was disinfected three times and the crew re-vaccinated. On arrival at this Port, two of the recovered cases were sent to the Port Hospital for disinfection. The vessel was visited daily during her stay in the Port.

Date 1905.	Name of Vessel.	Where from.	Nature of Sickness.	Hospital to which Patient was removed.
April 14	<b>Corinthian</b> ...	Halifax ...	Measles ...	Parkhill ...
April 14	<b>Campania</b> ...	New York ...	Enteric Fever	Netherfield Road
April 17	<b>Celtic</b> ...	New York ...	Scarlatina ...	Netherfield Road
April 17	<b>Celtic</b> ...	New York ...	Typhus Fever	Netherfield Road
April 22	<b>City of Agra</b> ..	Karachi . ... via Genoa	Small-pox ... (2 cases)	... ..
April 25	<b>Panama</b> ...	South America	Measles ... (5 cases)	Parkhill ...
April 28	<b>Clan Lamont</b>	Glasgow ..	Chicken-pox..	New Ferry ...
May 4	<b>Saxonia</b> ...	Boston ...	Measles ... (2 cases)	... ..
May 4	<b>Baltic</b> ...	New York ...	Measles ... (2 cases)	... ..
May 6	<b>Clan Macalister</b> ...	Bombay ...	Small-pox ...	... ..

## REMARKS.

The patient, a child steerage passenger, was removed to Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and the City Staff.

One of the crew, a seaman, was removed to Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

The patient, one of the passengers, was removed to Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

One of the crew was admitted to the Northern Hospital suffering from Pneumonia; it subsequently proved to be Typhus Fever, and was transferred to the City Hospital, Netherfield Road. Disinfection of the vessel and bedding carried out by the Port Sanitary Officers and City Staff.

Two of the native crew developed smallpox after leaving Karachi; they were immediately isolated by the Captain. On arrival at Suez they were examined and found convalescent, disinfection carried out.

An outbreak of Measles occurred on board on the homeward passage; the majority had recovered before arrival, but five cases were removed to Park Hill Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

One of the native crew of this vessel, who was suffering from Chickenpox, was removed to Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

The patients, two children, passengers, were convalescent and free from infection on arrival. They were allowed to proceed.

Two passengers (children), being convalescent and free from infection, were allowed to proceed.

One of the native crew was landed at Suez suffering from Smallpox. At Genoa the native crew were re-vaccinated, and their quarters disinfected. On arrival at this Port the crew were medically inspected, and all were found to be well.



Date 1905.	Name of Vessel.	Where from.	Nature of Sickness.	Hospital to which Patient was removed.
May 8	<b>Etruria</b> ...	New York ...	Diphtheria ...	... ..
May 8	<b>Orissa</b> ...	SouthAmerica	Enteric Fever	Grafton Street...
May 8	<b>Orissa</b> ...	Valparaiso ...	Small-pox ... (2 cases)	New Ferry ...
May 8	<b>Patroclus</b> ...	Singapore ...	Typhoid ...	Netherfield Road
May 10	<b>Arracan</b> ...	Rangoon ...	Small-pox ... (2 cases)	New Ferry ...
May 17	<b>Oceanic</b> ...	New York ...	Measles ...	... ..
May 22	<b>Oruba</b> ...	SouthAmerica	Enteric Fever	Grafton Street...
May 22	<b>Ottawa</b> ...	Montreal ...	Diphtheria ...	Mill Lane ...
May 24	<b>Australia</b> ...	Bombay .	Suspected ... Plague	New Ferry ...

## REMARKS.

The patient, a steward, was removed in the City Ambulance to his home in Arundel Street, Walton. The vessel and bedding were disinfected by the Port Sanitary Officers and City Staff.

The patient, an engineer, was removed to the City Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

A member of the crew was landed at Pernambuco suffering from Small-pox. On arrival here the vessel was visited, and it was found that another member of the crew was suffering from the disease. He was removed to the Port Hospital at New Ferry. Vaccination was offered to the passengers, but this was refused. Twenty-six of the crew were re-vaccinated, and the vessel and bedding fumigated and disinfected by the Port Sanitary Officers and the City Staff.

The patient, a passenger, was removed to the City Hospital North, and the vessel and bedding disinfected by the Port Sanitary Officers and the City Staff.

One of the crew of this vessel was landed at Aden suffering from Small-pox. The native quarters were fumigated by the Ship's Surgeon. On arrival here the vessel was medically inspected, and one of the crew was sent to the Port Hospital for observation. The case proved to be non-infectious.

The patient, one of the stewards, who was convalescent, proceeded to his home. Vessel disinfected by the Port Sanitary Officers.

The patient, a steward, was removed to Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

The patient, one of the stewards, was removed to Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and the City Staff.

One of the native crew was removed to the Port Hospital for observation. The case proved to be non-infectious.

Date 1905.	Name of Vessel.	Where from.	Nature of Sicknes.	Hospital to which Patient was removed.
May 24	<b>Majestic</b> ...	New York ...	Measles ...	... ..
June 1	<b>Baltic</b> ...	New York ..	Enteric Fever	Netherfield Road
June 5	<b>Canada</b> ...	Montreal ...	Measles ...	... ..
June 10	<b>Campania</b> ...	New York ...	Chicken-pox..	... ..
June 10	<b>Republic</b> ...	Boston ...	Chicken-pox..	. ...
June 14	<b>Aston Hall</b> ...	Bombay ...	Suspected ... Plague. (2 cases)	New Ferry
June 15	<b>Victorian</b> ...	Montreal ...	Measles ... (2 cases)	Parkhill ...
June 15	<b>Ivernia</b> ...	Boston ...	German ... Measles (2 cases)	... ..
June 17	<b>Degama</b> ...	Mobile ...	Enteric Fever	Netherfield Road



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REMARKS.

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The patient, one of the stewards, being convalescent, proceeded to his home. Disinfection carried out by the Port Sanitary Officers.

The patient, one of the crew, was removed to Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and the City Staff.

The patient, a passenger, being convalescent and free from infection, was allowed to proceed. Disinfection carried out by the Port Sanitary Officers.

The patient, a passenger, being convalescent and free from infection, was allowed to proceed. Disinfection carried out by the Port Sanitary Officers.

The patient, a saloon passenger, convalescent and free from infection, was allowed to proceed. Disinfection carried out by the Port Sanitary Officers.

This vessel was quarantined at Leghorn on account of dead rats having been found amongst the cargo, and discharge was stopped. On the passage to Liverpool a Lascar died after three days' illness (cause unknown), and on arrival here a Lascar was removed to Hospital and the vessel was detained pending an examination of the rats on board. Those caught were considered by Professor Boyce to be perfectly healthy. The vessel was allowed to proceed to Dock, and the cargo was discharged under supervision for dead rats, of which 100 were found. The vessel was thoroughly fumigated, and an additional 100 rats were killed; sweepings of cargo were destroyed, and all persons working amongst the cargo were watched, but no sickness developed.

Both patients were passengers; one was removed to Park Hill Hospital, the other, being convalescent, proceeded. Disinfection carried out by the Port Sanitary Officers.

The cases being convalescent and free from infection were allowed to proceed. Disinfection carried out by the Port Sanitary Officers.

The patient, one of the crew, was removed to Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

Date 1905.	Name of Vessel	Where from.	Nature of Sickness.	Hospital to which Patient was removed.
June 26	<b>Ottawa</b> ...	Montreal ...	Measles ...	... ..
June 29	<b>Director</b> ...	Bombay ... via Genoa	Suspected Plague	New Ferry ...
June 29	<b>Cedric</b> ...	New York ...	Measles ..	... ..
June 29	<b>Haverford</b> ...	Philadelphia..	Measles ...	... ..
June 30	<b>Clan Colquhoun</b> ...	Bombay ...	Suspected Plague (2 cases)	... ..
July 1	<b>Arabic</b> ...	Boston ...	Measles ...	... ..
July 4	<b>Orita</b> ...	Valparaiso . .	Small-pox ... (5 cases)	... ..
July 4	<b>Augustine</b> ...	Para ...	Measles ... (4 cases)	... ..
July 9	<b>Avon</b> ...	Alexandria ...	Enteric Fever	Netherfield Road
July 12	<b>Warwickshire</b>	Rangoon ..	Suspected Small-pox	New Ferry ...

REMARKS.

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The patient, convalescent and free from infection, was allowed to proceed. Disinfection carried out by the Port Sanitary Officers.

A death occurred shortly after leaving Bombay. On arriving at Suez, and again at Genoa, the vessel was fumigated. A Lascar was found to be unwell on arrival here, and he was removed to New Ferry Hospital for observation. The case proved to be non-infectious. Disinfection of the vessel was carried out.

The patient, a passenger, was landed at Queenstown. On arrival here the vessel was disinfected by the Port Sanitary Officers.

The patient, a passenger, was landed at Queenstown. On the vessel's arrival, disinfection was carried out by the Port Sanitary Officers.

Two of the crew were landed at Suez, where disinfection was carried out. On arrival at Dunkerque the vessel was again disinfected, including fumigation of the holds.

The patient, being convalescent, and free from infection, was allowed to proceed.

Five cases were landed on the homeward passage at Monte Video and Bahia. On arrival at Liverpool the vessel was medically inspected, and all were found to be well. Disinfection of the vessel was performed under the supervision of the Ship's Surgeon.

Four of the passengers were landed at Madeira, suffering from Measles, on the homeward passage. Disinfection of the vessel was carried out by the Port Sanitary Officers.

The patient was removed to Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

The patient, a Lascar, was removed to the Port Hospital for observation. Eighteen of the crew were re-vaccinated, and the vessel and bedding disinfected. The case proved to be non-infectious.



Date 1905:	Name of Vessel.	Where from.	Nature of Sickness.	Hospital to which Patient was removed.
July 17	<b>Diomed</b> ...	Singapore ...	Small-pox ... (5 cases)	... ..
July 24	<b>Medic</b> ...	Sydney ... via London	Diphtheria ...	... ..
July 27	<b>Amarapoora</b> ..	Glasgow ... for Rangoon	Enteric Fever	Grafton Street...
July 29	<b>Arabia</b> ...	Bombay ...	Suspected ... Plague.	New Ferry ...
July 29	<b>Virginian</b> ...	Montreal ...	Measles ... (4 cases)	... ..
July 29	<b>Dominion</b> ...	Montreal ...	Measles ...	... ..
Aug. 13	<b>Bonny</b> ...	West Coast of Africa.	Small-pox ...	New Ferry ...
Sept. 4	<b>Olympia</b> ...	Bombay ...	Enteric Fever	... ..
Sept. 6	<b>Trowbridge</b> ...	Karachi ...	Suspected ... Plague.	New Ferry ...
Sept. 11	<b>Flaminian</b> ...	Patras ...	Small-pox ...	New Ferry ...

## REMARKS.

Five cases occurred during the voyage. Disinfection was carried out at Hong Kong, Singapore and Nagasaki.

The patient, one of the passengers, was landed at London, where disinfection was carried out.

The patient, the carpenter of this vessel, was removed to the City Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

One of the native crew (a Lascar), who had suspicious Bubo, was removed to Hospital for observation. The sickness proved to be non-infectious.

Four of the passengers suffered from Measles on the outward passage. They were all landed at Montreal.

The case occurred on the outward passage. The patient was landed at Montreal, and disinfection carried out at that Port.

The patient, John Twograss (one of the crew), a negro fireman, was removed to Hospital, and the vessel and bedding disinfected. All the crew and two passengers were re-vaccinated. There was no extension of the disease.

The Chief Officer of this vessel died from Enteric Fever on arrival in the Port. The body was conveyed to Scotland for interment. The vessel was disinfected by the Port Sanitary Officers.

The patient, a fireman, was removed to Hospital for observation. The sickness proved to be non-infectious. The vessel was disinfected by the Port Sanitary Officers and City Staff.

The patient, the boatswain, and two contacts were removed to Hospital. The crew and passengers, 28 in number, were re-vaccinated and complete disinfection carried out. The crew were kept under observation at their homes, but there was no extension of the disease.

Date 1905.	Name of Vessel.	Where from.	Nature of Sickness.	Hospital to which Patient was removed.
Sep. 20	<b>Tyria</b> ...	Patras ...	Enteric Fever (4 cases)	... ..
Sep. 22	<b>Ivy</b> ... Schooner.	Pentewan ...	Enteric Fever	Toxteth Workhouse.
Sep. 22	<b>Bohemian</b> ...	Boston ...	Enteric Fever	Mill Road ...
Sep. 27	<b>Busiris</b> ..	Patras ..	Suspected Small-pox	New Ferry ...
Oct. 9	<b>Orita</b> ...	South America. ...	Small-pox ...	... ..
Oct. 9	<b>Orita</b> ..	South America. ...	Measles ... (2 cases)	... ..
Oct. 14	<b>Lucania</b> ...	New York ...	Erysipelas ...	Brownlow Hill..
Oct. 23	<b>Lake Erie</b> ...	Montreal ...	Enteric Fever	Mill Road ...



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REMARKS.

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Three of the crew of this vessel were left in Hospital at Gibraltar on the homeward passage, and the 2nd Officer was notified from an address in the city. Vessel disinfected by the Port Sanitary Officers and City Staff.

The patient, one of the crew, was admitted to the Toxteth Workhouse Hospital. Vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

The patient, a seaman, was removed to the Mill Road Infirmary, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

After the arrival of this vessel from Patras, a seaman was removed from his home in the City to the Port Hospital. In view of the fact that the ship came from a Smallpox-infected locality, and that he had felt unwell after he came ashore, it was considered advisable to detain and disinfect him.

The patient, a child passenger, was landed at Flores Island. The disinfection of the vessel was carried out by the Ship's Surgeon.

The patients, two children, were allowed to proceed to their home in St. Helens, information being sent to the Medical Officer of Health.

The patient, a seaman, was removed to Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers.

The patient, a cattleman, was removed to Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

Date 1905.	Name of Vessel.	Where from.	Nature of Sickness.	Hospital to which Patient was removed.
Oct. 25	<b>Jerome</b> ...	Manaos ...	Enteric Fever	Grafton Street...
Nov. 6	<b>Celtic</b> ...	New York ...	Enteric Fever	Grafton Street...
Nov. 10	<b>Philadelphian</b>	Portland ..	Suspected Small-pox	New Ferry ...
Nov. 11	<b>Lucania</b> ..	New York ...	Measles ...	... ..
Nov. 11	<b>Sailor Prince..</b> (for Manc'ster)	Alexandria ...	Enteric Fever	... ..
Nov. 20	<b>Minerva</b> . .	Malaga ...	Small-pox ...	New Ferry ...
Dec. 14	<b>Cedric</b> ...	New York ...	Enteric Fever	Netherfield Road
Dec. 19	<b>Oropesa</b> ..	Valparaiso ...	Plague ... (3 cases)	New Ferry ...

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REMARKS.

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The patient, one of the stewards, was removed to Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

The patient, one of the crew, was removed to Hospital, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

The patient, Job Wiggle (a cattleman), was removed to Hospital as a suspected case of Smallpox. All the cattlemen, 27 in number, were re-vaccinated, and the vessel and bedding disinfected. The sickness proved to be non-infectious.

The patient, a saloon passenger, was removed to private apartments for nursing. Vessel disinfected by the Port Sanitary Officers.

The patient proceeded with the vessel to Manchester, the Medical Officer of that Port being informed of the sickness.

The captain of this vessel was removed to Hospital. Five other members of the crew who had been in contact were taken to Hospital for disinfection. All the crew were re-vaccinated and the vessel and bedding disinfected.

The patient, a passenger, was removed to the City Hospital North, and the vessel and bedding disinfected by the Port Sanitary Officers and City Staff.

(See Special Report on page 17.)



## GENERAL SICKNESS.

TABLE 5.

Malaria	...	...	...	...	251	Tonsillitis	...	...	...	...	1
Phthisis	...	...	...	...	33	Ophthalmia	...	...	...	...	2
Heart Disease	...	...	...	...	24	Alcoholism	...	...	...	...	3
Venereal Disease	...	...	...	...	42	Sun Stroke	...	...	...	...	1
Pneumonia	...	...	...	...	13	Abscess	...	...	...	...	2
Beri-beri	...	...	...	...	31	Enteritis	...	...	...	...	2
Rheumatism	...	...	...	...	17	Lumbago	...	...	...	...	2
Diarrhœa	...	...	...	...	13	Fistula	...	...	...	...	1
Diseases of the Nervous System	...	...	...	...	4	Influenza	...	...	...	...	9
Dysentery	...	...	...	...	7	Septicaemia	...	...	...	...	1
Bronchitis	...	...	...	...	4	Peritonitis	...	...	...	...	2
Cancer	...	...	...	...	1	Gout	...	...	...	...	2
Gastritis	...	...	...	...	4	Asthma	...	...	...	...	3
Pleurisy	...	...	...	...	4	Poisoning	...	...	...	...	2
Skin Disease	...	...	...	...	5	Tumour	...	...	...	...	1
Dropsy	...	...	...	...	6	Jaundice	...	...	...	...	1
Hernia	...	...	...	...	3	Hæmorrhoids	...	...	...	...	1
Disease of Liver	...	...	...	...	5	Suicide	...	...	...	...	2
Disease of Kidneys	...	...	...	...	7	Insanity	...	...	...	...	2
Purpura Haemorrhagica	...	...	...	...	1	Minor Ailments	...	...	...	...	96

## SANITATION OF VESSELS.

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The sanitary conditions under which seamen live on board ship leaves much room for improvement; there has, however, been much improvement during recent years. It is well known that the majority of new vessels and of those built within recent years are well above the minimum standard as regards lighting, ventilation and other sanitary conditions laid down by the Board of Trade.

Many old vessels, like houses, are, however, still to be found to which, naturally, this standard could not be applied.

The Port Sanitary District of Liverpool is divided into four Sub-districts:—North, north central, south and the outlying, the latter including Birkenhead and Garston.

Four fully-qualified Sanitary Inspectors are engaged in the sanitary supervision of the ships for conditions affecting the health of crews. These inspectors all hold the certificate in Sanitary Science, and are thoroughly conversant with the structure of ships.

Insanitary conditions on board ship can be divided into three heads:—

1. Conditions due to faulty construction.
2.       ,,               ,,       wear and tear.
3.       ,,               arising from neglect.

Nuisances arising under Nos. 2 and 3 can be dealt with and remedied under the Public Health Act, 1875, by the constant and routine inspection of shipping whilst in Port. Many of these conditions are unavoidable, and arise from ordinary wear and tear and stress of

weather; those due to neglect will be gradually eliminated by the education of masters in their duties in connection with the health and welfare of their crews.

Conditions under No. 1, owing to faulty plans or construction, and when in proposing a remedy the strength and stability of a vessel might be concerned, are usually referred to the Authorities who originally pass the vessel.

As a rule, a verbal or written notice is all that is necessary to get the work done within a very short time.

Many vessels, however, on which repairs have been ordered to be done, or are in progress, cannot be followed up, from the fact that they are only here for a few days and the date of their return is very uncertain.

**Canal Boats.**—Under the Canal Boats Acts, 1877 and 1884, and the Regulations of the Local Government Board, 456 canal boats were inspected during the year. Of these 27 were found in an insanitary condition or to have infringed the Regulations laid down under the above Acts.

Some of the legal requirements that were not attended to included cabins dirty and leaky, no certificate of registration, absence of or decayed condition of water cask, defective ventilation in the cabins, offensive emanations from the bilges into living quarters, especially in those carrying manure and refuse.



## INSPECTION OF SHIPPING.

Year ending 1905.

TABLE 6.

The following Table indicates the number of visits paid to vessels by the Inspectors during the year :—

Nationality.		Visits.	Re-visits.	Total.
British ...	...	3,005	2,043	5,048
American	...	1	—	1
Norwegian	...	165	122	287
Swedish...	...	29	14	43
Austrian	...	3	1	4
Spanish...	...	154	106	260
Danish ...	...	17	9	26
Portuguese	...	3	2	5
German...	...	37	22	59
Italian ...	...	8	7	15
Belgian ...	...	5	3	8
Russian ...	...	22	21	43
French ...	...	24	12	36
Dutch ...	...	9	2	11
Greek ...	...	7	4	11
Argentine	...	1	—	1
Roumanian	...	1	—	1
		<u>3,491</u>	<u>2,368</u>	<u>5,859</u>

## SUMMARY OF INSANITARY CONDITIONS.

TABLE 7.

Class of Vessels.	Number Inspected.	Number on which nuisances were found.	Per cent.
FOREIGN—			
Steamers ... ..	1,974	1,044	52·8
Sailing ... ..	208	131	62·9
Total... ..	2,182	1,175	53·8
COASTWISE—			
Steamers ... ..	731	257	35·1
Sailing ... ..	578	242	41·8
Total... ..	1,309	499	38·1

Nationality.	Number Inspected.	Number on which Nuisances were found.
British ... ..	3,005	1,398
Foreign ... ..	486	276
	3,491	1,674

## Nuisances arising through

Defects of Original Construction.	Per cent. of Total Defects.	Structural Defects through wear and tear.	Per cent. of Total Defects.	Dirt, and other conditions prejudicial to health.	Per cent. of Total Defects.
135	3·1	1,053	24·5	3,105	72·3

TABLE 8.

THE FOLLOWING TABLE SHOWS THE NUMBER AND NATIONALITIES OF THE VESSELS ON WHICH DEFECTS WERE DETECTED DURING THE YEAR 1905.

NATIONALITY.	Number of Ships.	Dirty Forecasts.	Dirty Wash-houses, Store-houses, etc.	Foul Water Casks.	Foul Bilges.	Foul W.C's.	Accumulations of offensive refuse.	Gear slowed in Crew's Quarters.	Damp Quarters.	Water lodging on top of Forepeak Tank.	Animals kept, causing nuisance	Leaky Decks overhead.	Defective Stoves.	Defective Bulkheads.	Defective Ports and Sky-lights.	Defective Ventilators.	Defective Flooring Boards.	Defective Hatches and Lockers.	Defective Chain Pipes.	Defective Hawse Pipes.	Defective W.C. Fittings.	Defective Soil Pipes.	Inadequate Ventilation.	Inadequate Lighting.	Inadequate Drainage.	Bare Iron not Sheathed.	W.C's deficient in Ventilation and situation bad.	Total number of Defects.	Total Remedied.
British ...	1398	1513	104	67	6	873	15	25	54	20	2	131	82	117	306	27	28	41	29	17	103	12	34	6	34	3	7	3656	3121
Norwegian ...	98	59	3	7	4	56	...	1	2	...	...	8	4	2	29	...	...	...	1	2	16	...	17	...	2	...	1	214	175
Swedish ...	14	8	...	2	...	4	...	1	1	...	...	...	...	...	2	1	...	...	...	...	1	...	2	...	2	...	...	24	17
Austrian ...	2	...	...	...	...	1	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	3	3
Spanish ...	85	76	...	2	...	69	2	2	2	3	...	7	2	6	4	...	...	...	6	...	12	...	8	1	4	...	3	209	197
Danish ...	6	2	...	...	...	...	1	...	...	...	...	2	...	1	8	...	...	...	...	...	...	...	1	...	...	...	...	15	10
Portuguese ...	1	2	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3
German ...	20	8	...	...	...	16	...	...	...	...	...	...	1	2	8	...	...	...	1	...	2	...	...	...	...	...	3	41	35
Italian ...	5	2	2	2	...	3	...	...	...	...	...	2	...	...	2	...	...	...	...	...	1	1	...	...	...	...	...	15	15
Belgian ...	5	6	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	1	...	...	12	11
Russian ...	16	14	1	1	...	7	...	...	...	...	...	...	...	1	2	1	...	2	2	...	...	1	1	...	...	...	2	35	32
French ...	13	19	1	...	...	5	...	...	...	...	6	...	...	...	5	...	1	...	...	...	2	...	...	...	1	...	...	40	32
Dutch ...	4	...	...	2	...	1	...	1	...	...	...	...	...	...	2	...	...	...	...	...	...	...	1	...	1	...	...	8	2
Greek ...	6	10	...	...	...	3	...	...	...	...	...	...	...	...	1	...	...	...	2	...	...	...	...	...	...	...	...	16	14
Roumanian ...	1	..	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2
Total ...	1674	1719	111	83	10	1044	18	30	59	23	8	150	89	129	371	29	29	43	41	19	139	14	64	7	45	3	16	4298	3669





### Special Visits and Enquiries.

In addition to the inspection of ships and canal boats for conditions prejudicial to the health of the crew, the Port Sanitary Inspectors have almost daily duties and reports to make on other matters connected with the public health, for example, the Inspectors attend the Board of Trade clearances of emigrants to take charge of those rejected on account of infectious disease; these are isolated and sent to hospital. During the year 362 clearances were attended.

Outbreaks of sickness on board ship have to be enquired into and contacts watched. Other visits relate to complaints as regards smoke nuisances, or accumulations of refuse, or fæcal matter in the docks and basins. These are usually at once remedied by those concerned on their attention being drawn to the matter.

Disinfection of ships is another important matter attended to by the Inspectors, and during the year 112 ships were dealt with.

The Inspectors report daily to Dr. Hanna, the Assistant Medical Officer, and take action under his direct supervision as regards the general sanitation of vessels and canal boats. They also make reports of their enquiries regarding sickness of all kinds on board vessels coming into the Port of Liverpool.

In the month of July, a strike occurred amongst the men working Messrs. Harrison's ships in the Harrington and Toxteth Docks. The strikers were replaced by other workers, and in order to protect them from the violence which unhappily so frequently accompanies this method of dispute, they were housed in the sheds at these docks.

About July 13th there were 588 men distributed in two large sheds at the above docks. There was plenty of cubic space for the men, and the sheds were kept in a clean state and disinfectants were used where thought necessary.

Each man was provided with bed, blankets and a straw mat, which were rolled up on rising in the morning. The food provided was of good quality, and there was a plentiful supply of water from hydrants and drinking fountains situated outside the sheds. Personal cleanliness was attended to, and soap distributed daily. There was a good supply of washing bowls and buckets served out to the men. 32 water-closets and 16 urinals were available for use by the men at both docks, and additional lengths of urinal were provided.

Refuse and waste food were stored in barrels and removed twice daily.

About 30 surprise visits were made between July 14th and August 8th by the Port Sanitary Inspectors at all hours of the day and night. These visits were made in order to ascertain if any grounds of complaint existed; at no time however, was this the case, the sanitary conditions of the sheds being always in a most satisfactory state.

TABLE 9.

The following table shows the **number of ships disinfected** for infectious disease or as a precautionary measure during the year 1905.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Smallpox .....	...	1	...	1	2	...	...	2	2	...	1	...	9
Scarlet Fever .....	...	1	...	1	...	...	1	...	...	...	...	...	3
Typhus Fever.....	...	...	...	1	...	...	...	...	...	...	...	...	1
Enteric Fever .....	5	1	4	1	3	5	3	...	6	2	1	1	32
Diphtheria.....	...	...	...	...	2	...	...	...	...	...	...	...	2
Measles .....	1	1	...	1	4	2	1	...	...	1	1	2	14
German Measles .....	...	...	...	...	...	1	...	...	...	...	...	...	1
Erysipelas .....	3	1	2	...	...	...	...	...	...	1	...	1	8
Chicken Pox .....	...	...	...	1	...	2	...	...	...	1	...	1	5
Plague.....	...	1	...	...	...	...	...	...	...	...	...	1	2
Parotitis.....	...	1	1	1	2	...	...	1	...	...	...	...	6
Phthisis .....	2	1	1	...	1	3	3	1	...	2	1	...	15
Diarrhœa.....	...	...	1	...	...	...	...	1	...	...	...	...	2
Observation.....	...	1	1	...	1	1	3	...	1	...	2	...	10
Susp. Deaths at Sea...	...	...	...	...	2	...	...	...	...	...	...	...	2
	11	9	10	7	17	14	11	5	9	7	6	6	112



## EMIGRATION.

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The number of emigrants leaving the Port of Liverpool has been steadily increasing during the last seven years. The highest figure on record was reached in 1905, when the very large total of 277,536 left the Port; this is an increase of almost 3,000 emigrants passing through the city as compared with the previous year.

The following is a return of the number of emigrants and clearances of ships, including those passenger vessels in which medical inspection was not required, from 1890-1905.—

TABLE 10.

In 1890, 190,785 Emigrants, and 917 Clearances of Ships.

„ 1891, 206,418	„	933	„
„ 1892, 200,786	„	886	„
„ 1893, 167,468	„	808	„
„ 1894, 106,147	„	748	„
„ 1895, 117,196	„	723	„
„ 1896, 98,279	„	758	„
„ 1897, 87,414	„	723	„
„ 1898, 98,900	„	755	„
„ 1899, 118,568	„	714	„
„ 1900, 149,884	„	660	„
„ 1901, 167,452	„	761	„
„ 1902, 214,113	„	791	„
„ 1903, 265,918	„	902	„
„ 1904, 274,584	„	924	„
„ 1905, 277,536	„	983	„

*The following Tables, Nos. 11 and 12, relating to Emigration, have been kindly supplied by the Board of Trade.*

TABLE 11.

Statement showing the Number of Passengers of each Nationality that left the Port of Liverpool for places out of Europe in the year 1905 :—

DESTINATION.	NATIONALITY OF PASSENGERS.					
	English.	Scotch.	Irish.	Foreign.	Notdisting- guished.	Total.
British North America .....	63,036	1,886	669	24,764	43	90,398
Australia and New Zealand .....	2,339	601	326	58	5	3,329
British South Africa .....	941	187	98	64	—	1,290
India (including Ceylon).....	—	—	—	—	2,486	2,486
Other British Colonies and Possessions. )	28	15	8	—	2,376	2,427
Total British Empire .....	66,344	2,689	1,101	24,886	4,910	99,930
United States .....	51,474	4,320	5,759	109,158	1,431	172,142
Other Foreign Countries .....	867	269	202	1,304	2,822	5,464
Total Foreign Countries.....	52,341	4,589	5,961	110,462	4,253	177,606
Grand Total .....	118,685	7,278	7,062	135,348	9,163	277,536

TABLE 12.

Number of Passengers of each Nationality, as given in Table No. 11, that sailed from the Port of Liverpool in each month of the year 1905.

MONTH.	NATIONALITY OF PASSENGERS.					
	English.	Scotch.	Irish.	Foreigners.	Not distinguished.	Total.
January .....	4,500	367	221	8,045	631	13,764
February .....	5,934	428	255	8,989	628	16,234
March .....	13,499	821	740	14,111	682	29,853
April .....	16,393	796	813	14,173	561	32,736
May.....	13,287	607	771	14,252	382	29,299
June .....	10,559	665	475	10,774	400	22,873
July.....	9,670	484	394	10,040	530	21,118
August .....	14,133	772	867	14,146	1,004	30,922
September .....	11,928	873	1,098	17,317	1,423	32,639
October .....	8,733	634	690	9,862	1,250	21,169
November .....	6,227	476	513	7,479	1,058	15,753
December .....	3,822	355	225	6,160	614	11,176
Total .....	118,685	7,278	7,062	135,348	9,163	277,536



### Emigrant Inspections.

The medical inspection of emigrants on board the outward bound steamers is carried on by Dr. Hill and Dr. Spooner, Medical Officers appointed by the Board of Trade. Emigrants showing symptoms of illness, or coming from localities where infection is rife, are liable to be rejected. One of the Port Sanitary Inspectors is present at these Board of Trade clearances.

There were 362 inspections during the year 1905, and 59 persons (mostly children) rejected on account of disease of an infectious nature, or under suspicion of developing such. These persons are taken charge of by the Inspector, who makes the necessary arrangements for their removal, if necessary, to hospital.

TABLE 13.

#### PARTICULARS OF REJECTIONS OF EMIGRANTS.

Date, 1905.	Name of Vessel.	Nature of Sickness.	Where taken to.	Description of Patient.
Jan. 3	<b>Saxonia</b> ...	Chicken-pox ...	City Hospital ...	Child
,, 14	<b>Campania</b> ...	Whooping Cough..	Returned ashore ...	Child
,, 21	<b>Etruria</b> ...	Whooping Cough..	Boarding-house ... Great George Square	Child
,, 21	,, ...	Alcoholism ...	Returned ashore ...	Adult
Feb. 1	<b>Oceanic</b> ...	Favus ...	Boarding-house ... 109, Duke Street	Child
,, 14	<b>Ivernia</b> ...	Favus ...	Boarding-house ... Great George Square	Child
March 1	<b>Oceanic</b> ...	Whooping Cough..	Boarding-house ... 130, Duke Street	Child
,, 1	,, ...	Abscess ...	Boarding-house ... 130, Duke Street	Adult
,, 8	<b>Merion</b> ...	Measles ...	Boarding-house ... 11, Gt. George Square	Child
,, 8	<b>Cedric</b> ...	Measles ...	City Hospital, Parkhill ...	Child

TABLE 13.—*Continued.*

Date, 1905.	Name of Vessel.	Nature of Sickness.	Where taken to.	Description of Patient.
March 18	<b>Etruria</b> ...	Eczema ...	Boarding-house ... Gt. George Square	Child
„ 21	<b>Lake Champlain</b>	Measles ...	City Hospital, Grafton St.	Infant
„ 22	<b>Teutonic</b> ...	Measles ...	Boarding-house ... 31, Roberts Street	Child
„ 29	<b>Oceanic</b> ...	For observation ...	Boarding-house ... 109, Duke Street	Child
April 1	<b>Caronia</b> ...	Measles ...	City Hospital, Parkhill ...	Child
„ 1	„ ...	Alcoholism ...	Returned ashore ...	Adult
„ 5	<b>Majestic</b> ...	Favus ...	Returned ashore ...	Child
„ 7	<b>Cedric</b> ...	Chicken-pox ...	City Hospital, Fazakerley	Infant
„ 13	<b>Afric</b> ...	Alcoholism ...	Returned ashore ...	Adult
„ 22	<b>Campania</b> ...	Skin Disease ...	Returned ashore ...	Adult
„ 26	<b>Oceanic</b> ..	Whooping Cough..	Returned ashore ...	Children (2)
„ 26	<b>Yancouver</b> ...	Chicken Pox ...	City Hospital, Fazakerley.	Child
„ 28	<b>Cymric</b> ...	Chicken Pox ...	City Hospital, Fazakerley.	Infant
May 5	<b>Cedric</b> ...	Chicken Pox ...	City Hospital, Fazakerley.	Child
„ 9	<b>Saxonia</b> ...	Measles ...	City Hospital, Parkhill ...	Child
„ 17	<b>Merion</b> ...	Eczema ...	Boarding-house ... 39, Paradise Street	Child
„ 17	„ ...	Scabies ...	Boarding-house ... 39, Paradise Street	Adult
„ 30	<b>Caronia</b> ...	Skin Disease ...	Boarding-house ... 3, Great George Square	Child

TABLE 13.—*Continued.*

Date, 1905.	Name of Vessel.	Nature of Sickness.	Where taken to.	Description of Patient.
May 31	<b>Haverford</b> ...	Chicken-pox ...	Boarding-house ... 8, Grove Street	Child
June 1	<b>Ottawa</b> ...	Measles ...	City Hospital ...	Child
„ 3	<b>Lucania</b> ...	Measles ...	City Hospital, Parkhill ...	Infant
„ 6	<b>Saxonia</b> ...	Chicken-pox ...	City Hospital, Fazakerley.	Child
„ 6	„ ...	Chicken-pox ...	City Hospital, Fazakerley.	Child
„ 6	„ ...	For observation ...	City Hospital, Fazakerley.	Child
June 13	<b>Lake Erie</b> ...	Chicken-pox ...	Returned home ...	Child
August 4	<b>Cymric</b> ...	Measles ...	Boarding-house ... 39, Paradise Street	Infant
„ 9	<b>Baltic</b> ...	For observation ...	Boarding-house ... 11, Great George Sq.	Child
„ 16	<b>Teutonic</b> ...	Skin Disease ...	Boarding-house ... 39, Paradise Street	Child
„ 16	<b>Friesland</b> ...	For observation ...	Brownlow Hill Hospital...	Child
„ 25	<b>Republic</b> ...	Whooping Cough..	Boarding-house ...	Infant
„ 31	<b>Southwark</b> ...	Measles ...	City Hospital, Parkhill ...	Child
5	<b>Carpathia</b> ...	Measles ...	Returned to ... 3, St. Paul's Square	Infant
„ 6	<b>Baltic</b> ...	For observation ...	Boarding-house ... 130, Duke Street	Child
„ 7	<b>Dominion</b> ...	Chicken-pox ...	City Hospital, Fazakerley.	Child
„ 12	<b>Lake Champlain</b>	Measles ...	City Hospital, Parkhill ...	Infant
„ 14	<b>Ottawa</b> ...	Diarrhœa ...	Boarding-house ... 109, Duke Street	Infant

TABLE 13—*continued.*

Date, 1905.	Name of Vessel.	Nature of Sickness.	Where taken to.	Description of Patient.
Sept. 20	<b>Oceanic</b> ...	Scabies ...	Boarding-house ... 130, Duke Street	Child
„ 20	„ ...	Alcoholism ...	Returned ashore ...	Adults (2)
„ 26	<b>Saxonia</b> ...	Chicken-pox ...	City Hospital, Fazakerley.	Child
Oct. 19	<b>Ottawa</b> ...	Chicken-pox ...	City Hospital, Fazakerley.	Infant
„ 25	<b>Friesland</b> ...	Chicken-pox ...	City Hospital, Fazakerley.	Infant
„ 26	<b>Orita</b> ...	Chicken-pox ...	City Hospital, Fazakerley.	Infant
Nov. 8	<b>Merion</b> ...	Measles ...	Returned ashore ...	Child
„ 23	<b>Dominion</b> ...	Chicken-pox ...	Boarding-house ... 109, Duke Street	Child
„ 29	<b>Noordland</b> ...	Chicken-pox ...	Returned to ... 76, Vine Street	Child
Dec. 28	<b>Cymric</b> ...	Trachoma ...	Boarding-house ... 130, Duke Street	Adult
„ 28	<b>Haverford</b> ...	Measles ...	City Hospital, Parkhill ...	Child

### Aliens Act.

A Report on Alien Immigration was prepared and issued by an Inter-departmental Committee, and, as a result, an Act was passed to amend the law with regard to aliens, called the Aliens Act, 1905. This Act comes into operation on January 1st, 1906, and will give powers to prevent the landing of certain undesirable aliens. It also gives powers to the Secretary of State to make an Expulsion Order under certain circumstances, for example, in the case of an alien who has been convicted of felony or misdemeanour when imprisonment without option of a fine is imposed.



The Act provides that "leave to land shall not be refused, on ground of want of means or probability of his becoming chargeable on the rates, to any immigrant who proves that he is seeking admission to this country to avoid persecution or punishment on account of religious or political grounds, or for an offence of a political character or persecution involving danger of imprisonment, or danger to life or limb on account of religious belief."

The Secretary of State has appointed Immigration Officers and Medical Inspectors who carry out the routine work at the following ports:—Cardiff, Dover, Folkestone, Grangemouth, Grimsby, Horwich, Hull, Leith, Liverpool, London (including Queenborough), Newhaven, Southampton, Tyne Ports (Newcastle, North and South Shields). He has also appointed certain Magistrates, &c., to be members of the Immigration Board at each port.

During the year the Port has remained free from forms of sickness leading to quarantine measures in foreign ports.

As in previous years, the various bodies connected with the administration of the Port have co-operated with the Port Sanitary Authority in preventing disease, and have worked harmoniously together in every particular.

E. W. HOPE, M.D.

MUNICIPAL OFFICES,

LIVERPOOL, *1st March*, 1906.

# PORT OF LIVERPOOL.

## 1905.



